

**ROTEL**

# Owner's Manual

## RC-1070

Stereo Control Amplifier

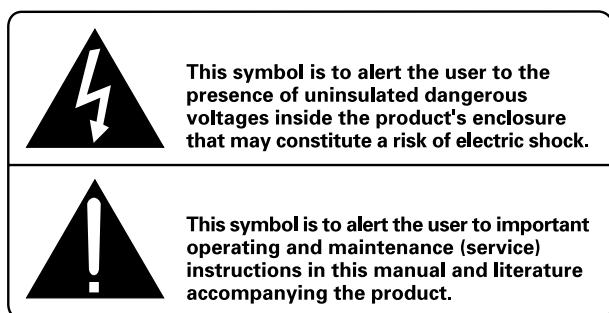




**APPLICABLE FOR USA, CANADA OR WHERE APPROVED FOR THE USAGE**

**CAUTION:** TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT. INSERT FULLY.

**ATTENTION:** POUR EVITER LES CHOCs ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.



## Cautions

**WARNING:** There are no user serviceable parts inside. Refer all servicing to qualified service personnel.

**WARNING:** To reduce the risk of fire or electric shock, do not expose the unit to moisture or water. Do not allow foreign objects to get into the enclosure. If the unit is exposed to moisture, or a foreign object gets into the enclosure, immediately disconnect the power cord from the wall. Take the unit to a qualified service person for inspection and necessary repairs.

Read all the instructions before connecting or operating the component. Keep this manual so you can refer to these safety instructions.

Heed all warnings and safety information in these instructions and on the product itself. Follow all operating instructions.

Clean the enclosure only with a dry cloth or a vacuum cleaner.

You must allow 10 cm or 4 inches of unobstructed clearance around the unit. Do not place the unit on a bed, sofa, rug, or similar surface that could block the ventilation openings. If the unit is placed in a bookcase or cabinet, there must be ventilation of the cabinet to allow proper cooling.

Keep the component away from radiators, heat registers, stoves, or any other appliance that produces heat.

The unit must be connected to a power supply only of the type and voltage specified on the rear panel. (USA: 115 V/60Hz, EC: 230V/50Hz)

Connect the component to the power outlet only with the supplied power supply cable or an exact equivalent. Do not modify the supplied cable. Do not defeat grounding and/or polarization provisions. The cable should be connected to a 2-pin polarized wall outlet, matching the wide blade of the plug to the wide slot of the receptacle. Do not use extension cords.

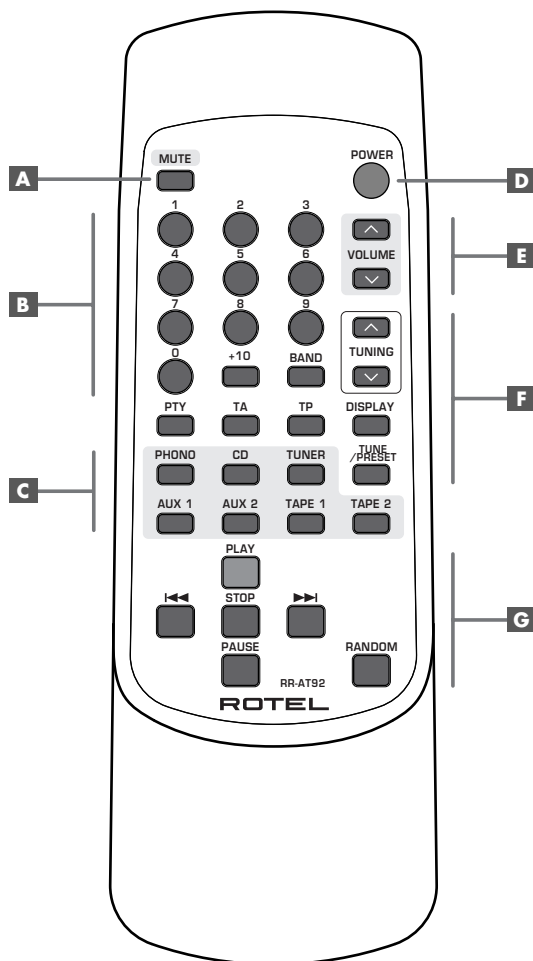
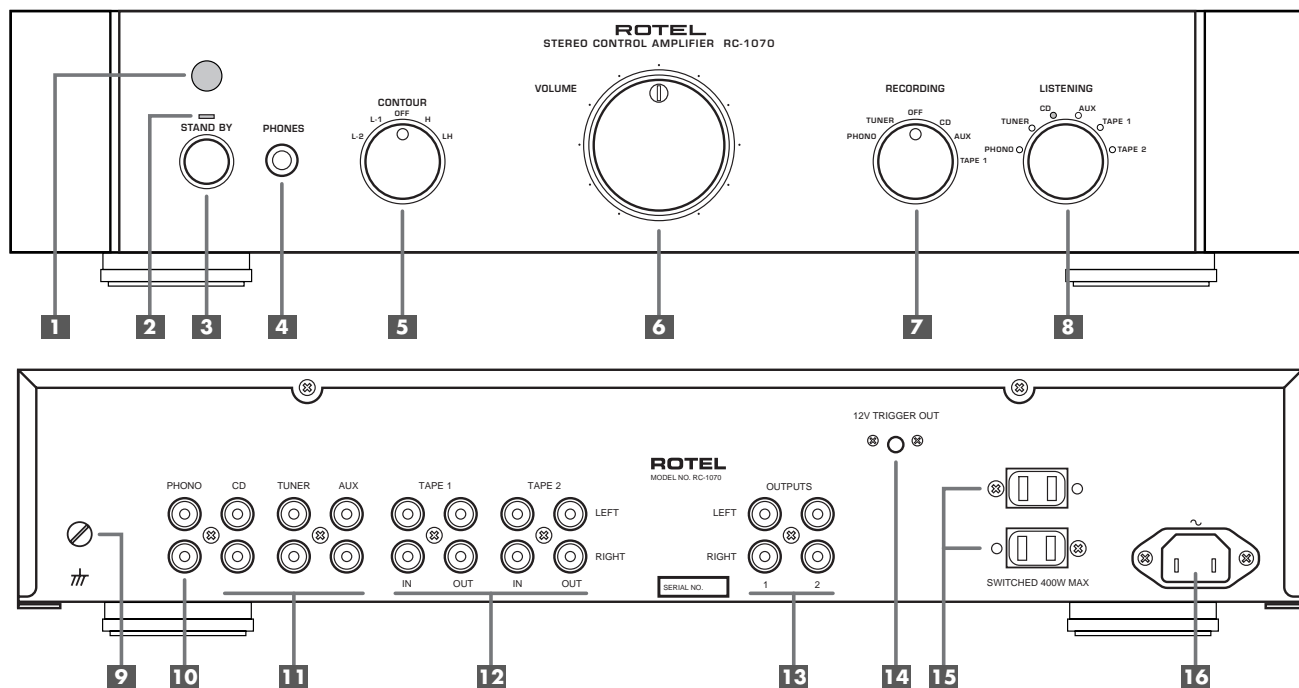
Do not route the power cord where it will be crushed, pinched, bent, exposed to heat, or damaged in any way. Pay particular attention to the power cord at the plug and where it exits the back of the unit.

The power cord should be unplugged from the wall outlet if the unit is to be left unused for a long period of time.

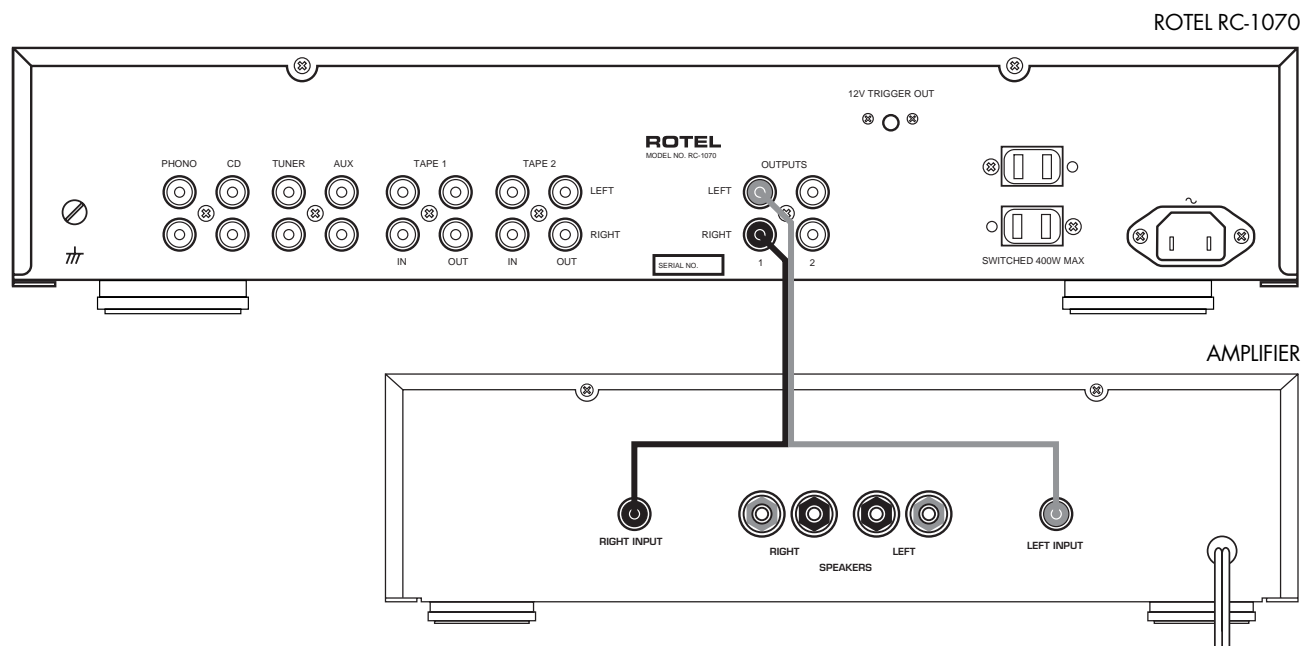
Immediately stop using the component and have it inspected and/or serviced by a qualified service agency if:

- The power supply cord or plug has been damaged.
- Objects have fallen or liquid has been spilled into the unit.
- The unit has been exposed to rain.
- The unit shows signs of improper operation
- The unit has been dropped or damaged in any way

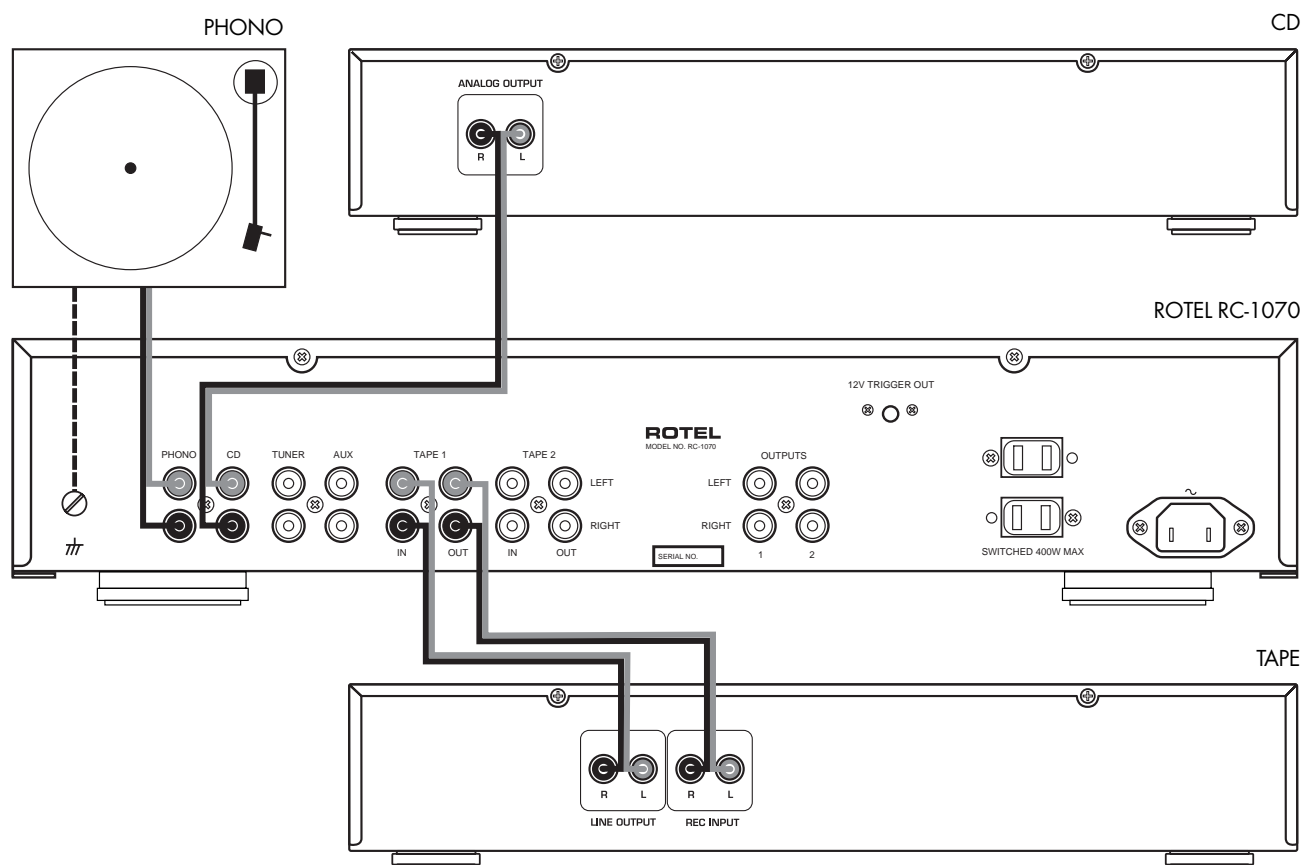
## 1: Controls and Connections



## 2: Output Connections



## 3: Input Connections



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Boxed numbers refer to RC-1070 illustration.  
Boxed letters refer to RR-AT92 illustration.

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## About Rotel

A family whose passionate interest in music led them to manufacture high fidelity components of uncompromising quality founded Rotel almost 40 years ago. Through the years that passion has remained undiminished and the family goal of providing exceptional value for audiophiles and music lovers, regardless of their budget, is shared by all Rotel employees.

The engineers work as a close team, listening to, and fine tuning each new product until it reaches their exacting musical standards. They choose components from around the world in order to make that product the best they can. You are likely to find capacitors from the United Kingdom and Germany, semi conductors from Japan or the United States, while toroidal power transformers are manufactured in Rotel's own factory.

Rotel's reputation for excellence has been earned through hundreds of good reviews and awards from the most respected reviewers in the industry, who listen to music every day. Their comments keep the company true to its goal – the pursuit of equipment that is musical, reliable and affordable.

All of us at Rotel thank you for buying this product and hope it will bring you many hours of enjoyment.

## Getting Started

Thank you for purchasing the Rotel RC-1070 Stereo Control Amplifier. When used in a high-quality audio system, it will provide years of musical enjoyment.

The RC-1070 is a full featured, high performance preamplifier. All aspects of the design have been optimized to retain the full dynamic range and subtle nuances of your music. The RC-1070 has a highly regulated power supply incorporating a Rotel custom-designed power transformer. This low impedance power supply has ample power reserves, enabling the RC-1070 to easily reproduce the most demanding audio signals. This type of design is more expensive to manufacture, but it is better for the music.

The RC-1070 printed circuit boards are designed with Symmetrical Circuit Traces. This insures that the precise timing of the music is maintained and faithfully recreated. The RC-1070 circuitry uses metal film resistors and polystyrene or polypropylene capacitors in important signal paths. All aspects of this design have been examined with the final goal being faithful reproduction of music.

The RC-1070 is straightforward in its installation and operation. If you have experience with other stereo systems, you shouldn't find anything perplexing. Simply plug in the associated components and enjoy.

Please read this manual carefully. It provides complete information on how to incorporate the RC-1070 into your system as well as general information that will help you get optimum performance. Please contact your authorized Rotel dealer for answers to any questions. In addition, all of us at Rotel welcome your questions and comments.

## Unpacking

Carefully remove the RC-1070, the remote control, and accessories from the shipping carton. Save the shipping carton and all enclosed packing material for future use. Shipping or moving the unit in anything other than the original packing material may result in severe damage.

Keep the original sales receipt. It is your best record of the date of purchase, which you will need in the event warranty service is ever required.

## Placement

Like all audio components that handle low-level signals, the RC-1070 can be affected by its environment. To minimize the chance the RC-1070 will pick up hum or interference, do not place it on top of an amplifier or any other device with a large power transformer. Keep the RC-1070 away from devices that have motors for the same reason. Do not place the RC-1070 where it will be exposed to direct sunlight.

We recommend installing the RC-1070 in furniture designed to house audio components. Such furniture is designed to reduce or suppress vibration which can adversely affect sound quality. Ask your authorized Rotel dealer for advice about component furniture and proper installation of audio components.

The RC-1070 is supplied with an RR-AT92 remote control and must be placed where the infrared signal from the remote can reach the front panel Remote Sensor.

## Cables

Keep power cords, digital cables, and audio cables away from each other. This will minimize the chance of the audio signal cables picking up noise or interference from the power cords or digital cables. Using high quality, shielded cables will also help to prevent noise or interference. If you have any questions see your authorized Rotel dealer for advice about the best cable to use with your system.

## Remote Control

The RC-1070 includes an RR-AT92 remote control that operates many of the controls of the RC-1070. In addition, the remote operates basic features of some Rotel CD players, DVD players, and AM/FM tuners.

### Audio Controls **A C D E**

The RR-AT92 duplicates the basic audio functions of the RC-1070 front panel. When a function is available on both the front panel and the remote, a number (front panel controls) and a letter (remote buttons) are shown in the instructions. For example, to change the volume level you can either turn the control **6** on the front panel or use the buttons **E** on the remote control. When only one identifier appears, that control is available only on the front panel or the remote, but not both.

### CD Functions **B G**

The PLAY, STOP, PAUSE, TRACK +/-, RANDOM buttons, and NUMERIC keys (0-10) operate many Rotel CD players after the CD button on the remote has been pressed.

### DVD Functions **G**

The PLAY, STOP, PAUSE, and TRACK +/-, buttons operate Rotel DVD players, after the AUX1 button on the remote has been pressed.

### Tuner Functions **B F**

The BAND, TUNING, and additional tuning feature buttons operate Rotel tuners, after the TUNER button on the remote has been pressed.

By default, the RR-AT92 operates the Rotel RT-955 tuner. Alternatively, the remote can be reprogrammed to operate the RT-940AX tuner. This programming only needs to be done once:

**To program for the RT-940AX:** press the POWER button and the 2 button simultaneously.

**To program for the RT-955:** press the POWER button and the 1 button simultaneously.

### Remote Sensor **1**

The remote sensor receives infrared signals from the remote control. Do not cover or block the sensor. It must be unobstructed or the remote control will not work properly.

The operation of the Remote Sensor can also be affected if it is exposed to bright sunlight or certain types of lighting (such as halogen lights) that emit infrared light. In addition remote control functions may not work reliably if the batteries in the RR-AT92 are weak.

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**NOTE:** To use the remote, aim it at the remote sensor on the front panel of the RC-1070.

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### Remote Control Batteries

Two UM-4/AAA size batteries (supplied) must be installed before the remote control can be used. To install the batteries, remove the cover on the back of the RR-AT92. Install the batteries as shown in the illustration in the battery well. Test the control for proper operation, then replace the cover. When the batteries become weak the remote control won't operate the RC-1070 consistently. Installing fresh batteries should eliminate the problem.

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**NOTE:** Remove the batteries from the remote if it will not be used for a long period of time. Do not leave run down batteries in the remote control; they can leak corrosive chemicals which will damage the unit.

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## Signal Connections

The RC-1070 has inputs for line level and phono source components, connections for audio tape decks, and output connections to send signals to power amplifiers.

**NOTE:** To prevent loud, potentially damaging, noises, make sure the system is turned off when you make any signal connections.

### Outputs 13

See Figure 2

The RC-1070 has RCA-type output connectors that are compatible with the inputs of most power amplifiers. Use high quality cables and be sure to connect the Left and Right channel outputs of the RC-1070 to the correct channels of the amplifier.

There are two sets of variable gain outputs on the RC-1070. The second set of outputs may be used in custom system configurations to drive a second power amplifier or to supply a signal to a signal processor.

### Line Level Inputs 11

See Figure 3

The RC-1070 has three pair of conventional RCA input connectors for line level components such as CD players, video cassette recorders, tuners, Laser Disc players, or DVD players. These inputs are labeled CD, TUNER, and AUX.

The Left and Right channels are clearly labeled and should be connected to the corresponding channels of the source component. The Left RCA connectors are white, the Right connectors are red. Use high quality RCA cables for connecting input source components to the RC-1070. Ask your authorized Rotel dealer for advice about cables.

### Recorder Connections 12

See Figure 3

Tape inputs and outputs can be connected to any record/playback device that accepts standard line level analog input and output signals. Typically that will be a conventional tape recorder. There are two sets of tape connections on the back panel, labelled TAPE 1 and TAPE 2.

When connecting a recorder to the RC-1070, the **outputs** of the recorder must be connected to the tape **inputs** of the RC-1070. Similarly the tape **outputs** of the RC-1070 must be connected to the **inputs** of the recorder. Be sure to connect the Left and Right channels of each device to the proper channels on the associated components. Use high quality connecting cables to prevent loss of sound quality.

**NOTE:** The tape inputs can also be used for standard playback-only source components, omitting the output connections.

### Phono Inputs 10 Ground Terminal 9

The RC-1070 has a built-in phono preamplifier. To connect a turntable, connect the Left and Right RCA signal cables to the Left and Right RCA inputs labeled PHONO. Be sure to connect the Left and Right channels to the proper channels. Attach the ground wire from the turntable to the Ground screw-terminal on the back panel.

## AC Power and Control

### AC Power Input 16

The RC-1070 does not use a significant amount of power. However there are two auxiliary power outlets on the back panel, which can be used to supply power for other units. Consequently, it is best to plug the RC-1070 directly into a 2-pin polarized wall outlet. Avoid the use of extension cords. A heavy duty power outlet strip may be used if it (and the wall outlet) is rated to handle the current demanded by the components connected to it.

Your RC-1070 is configured at the factory for the proper AC line voltage in the country where you purchased it (USA: 115 volts/60Hz AC or CE: 230 volts /50 Hz AC ). The AC line configuration is noted on a decal on the back panel. Plug the supplied cord into the AC INPUT receptacle on the back of the unit.

**NOTE:** Should you move your RC-1070 amplifier to another country, it is possible to reconfigure your amplifier for use on a different line voltage. Do not attempt to perform this conversion yourself. Opening the enclosure of the RC-1070 exposes you to dangerous voltages. Consult a qualified service person or the Rotel factory service department for information.

If you are going to be away from home for an extended period of time such as a month-long vacation, it is a sensible precaution to unplug your audio and video components while you are away.

### POWER/STANDBY Switch 3 D Power Indicator 2

The Power Indicator light above the STANDBY button is always illuminated when the RC-1070 is connected to a live AC outlet. When the front panel STANDBY button or remote control POWER button is pressed, the RC-1070 is turned on. The LISTENING control indicator lights and VOLUME CONTROL indicator light will illuminate. Pressing either button again will put the RC-1070 in standby mode and these indicator lights are turned off.

### Auxiliary Power Outlets 15 (North American version)

The RC-1070 has two switched outlets on the back panel. Power is available from these outlets when the RC-1070 is turned on. These outlets can provide up to a total of 400 watts. They are appropriate for supplying power to signal sources, such as CD players, tuners, or tape decks. They should not be used for power amplifiers. Connecting components that will draw more than 400 watts to these outputs could damage the RC-1070.

**NOTE:** Do not connect a power amplifier to the auxiliary power outlets on the RC-1070. Power amplifiers often draw more power than these outlets can provide.

### 12V TRIGGER Connection 14

Several Rotel amplifiers can be turned on and off using a 12 volt trigger signal. This connection provides this 12 volt trigger signal. When the RC-1070 is activated, a 12 volt DC signal appears at this connector and will turn on an amplifier. When the RC-1070 is put in STANDBY mode, the trigger signal is interrupted and the amplifier will be turned off.

## Audio Controls

The following controls are used to operate the RC-1070.

### VOLUME Control **6 E**

Turn the front panel VOLUME control clockwise to increase the volume, or counterclockwise to decrease the volume. Alternatively, press the VOL buttons on the remote control to adjust the volume up or down

### CONTOUR Selector **5**

Instead of conventional tone controls, the RC-1070 has a front-panel CONTOUR control which selects one of five available settings. Each setting provides a fixed frequency contour as follows:

**OFF:** the tone contour circuits are bypassed to ensure the purest possible sound.

**L-1:** moderate increase in bass frequencies (typically +3dB @ 100Hz).

**L-2:** more increase in bass frequencies (typically +4dB @ 100Hz).

**H:** moderate increase in high frequencies (+3dB @ 10kHz).

**LH:** combination of L-2 bass and H high frequency increases.

### LISTENING Selector **8 C**

The setting of the LISTENING selector controls which of the input signals goes to the main outputs and onto the power amplifier – or, more simply, which source is heard. Turn the front panel control to the source you want to hear, or press the corresponding button on the RR-AT92 remote.

**NOTE:** The AUX1 button on the remote duplicates the function of the front panel AUX button.

### RECORDING Selector **7**

The RC-1070 can record from any input source (except TAPE 2) to a recorder connected to TAPE 1 or TAPE 2 outputs. To select an input source for recording, turn the RECORDING control on the front-panel to the desired source.

This selection is independent of the source selected for listening. While recording, you may still select a different source using the LISTENING selector.

If you have a three-head recorder or a DAT recorder that allows simultaneous read and write operation, you can monitor your recording by setting the LISTENING switch to the TAPE 1 or TAPE 2 position.

**NOTE:** If you select TAPE 1 with the RECORDING control, the recording signal will only be available at the TAPE 2 recording outputs, not the TAPE 1 outputs. To dub a tape, select TAPE 1 and record to the tape deck connected to the TAPE 2 outputs.

### MUTE Button **A**

To temporarily mute the sound of the system press the MUTE button on the RR-AT92 remote. Press the button again to return the sound volume to the original level. The LED in the volume control will flash when the unit is muted.

### PHONES Output **4**

The PHONES output allows you to connect headphones for private listening. This output accepts standard stereo phone (1/4") plugs. If your headphones have another type of plug, such as a 1/8" mini-plug, you will need an adapter plug. Contact your authorized Rotel dealer, to get the correct adapter plug.

**NOTE:** Plugging in headphones does not cut off the signal to the outputs. In most instances, you should turn off the power amplifier when listening to headphones.

## Specifications

**Total Harmonic Distortion (20 Hz-20 kHz)**  
< 0.006%

**Intermodulation Distortion**  
< 0.006% at 1V output (60 Hz:7 kHz, 4:1)

**Input Sensitivity/Impedance**  
Line Level: 150 mV/24 kOhms  
Phono (MM): 1.2mV/68k ohms

**Output Level/Impedance**  
1V/100 Ohms

**Usable Headphone Impedance**  
8 – 2,000 Ohms

**Frequency Response**  
Line Level: 4Hz – 100kHz, +0, -3dB  
Phono: 20Hz – 20kHz, ±0.5dB

**Signal to Noise Ratio (IHF "A" weighted)**  
Line Level: 95 dB  
Phono: 70 dB

**Phono Overload:**  
70mV

**Power Requirements**  
USA: 115 Volts, 60 Hz  
CE: 230 Volt, 50 Hz

**Power Consumption**  
10 Watts

**Dimensions (W x H x D)**  
430 x 92 x 344 mm  
17" x 3 5/8" x 13 5/8"

**Weight (net)**  
5.4 kg, 11.9 lbs.

**All specifications are accurate at the time of printing.**

**Rotel reserves the right to make improvements without notice.**

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